T.E.

SYSTEMS S-3201

SCHEMATIC

MP MASTER
MA34253

LING Electronics

A DIVISION OF LTV LING ALTEC, Inc.

INSTRUCTION MANUAL

ENGINEERING PARTS LIST

DATE 12-13-64 PAGE 1 MANUAL
REV. C CONT'D ON 2 REQUISITION NO.

MODEL OR ASSY.	SERIAL NO.	SHOP ORDER	PON	QTY.	ACCOUNT NO.	M-DAY	DATE
S-3201 System			42521				

REV.	ITEM	*R.S.	SYMBOL DESIG.	STOCK/DWG NUMBER	DESCRIPTION	MFG CODE	MANUFACTURER PART NUMBER	QTY. ASSY.	QTY. UNIT	CODE	KARDEX	PURCHAS ORDER
				43671	S-3201 System			-	-			
				21579	Schematic - Wiring SCO			-	-			
				50049	Power Installation Drawing			-	-			
				43775 2	Wire List							
				Delete 32550	Component Layout			-	-			

*R.S. - RECOMMENDED AS CUSTOMER SPARES

LING ELECTRONICS A division of LING-TEMCO-VOUGHT, INC.

DEPARTMENT	ISSUED BY	ISSUE DATE	RE

ENGINEERING PARTS LIST

DATE 10-3-63 PAGE 2 MANUAL

REV. C CONT'D ON 3 REQUISITION NO.

MODEL OR ASSY.	SERIAL NO.	SHOP ORDER	PON	QTY.	ACCOUNT NO.	M-DAY	DATE
S-3201 System							

REV.	ITEM	*R.S.	SYMBOL DESIG.	STOCK/DAG NUMBER	DESCRIPTION	MFG CODE	MANUFACTURER PART NUMBER	QTY. ASSY.	QTY. UNIT	CODE	KARDEX	PURCHASE ORDER
				CP-5/6-4	Amplifier			1	1			
				SCO-3	Servo Cycling Oscillator			1	1			
C				330	Shaker with Degauss Coil and A/S Cable			1	1			
C X												
A												
				31045	Bracket Filler			1	1			
				ES-100-3	Panel, Blank 3 1/2 x 19			1	1			
				ES-100-8	Panel, Blank 8 3/4 x 19			1	1			

*R.S. - RECOMMENDED AS CUSTOMER SPARES

DEPARTMENT | ISSUED BY | ISSUE DATE

LING ELECTRONICS a division of LING-TEMCO-VOUGHT INC

ENGINEERING PARTS LIST

DATE 10-3-64 PAGE 2 MANUAL
REV. C CONT'D ON 2 REQUISITION NO.

MODEL OR ASSY.	SERIAL NO.	SHOP ORDER	PON	QTY.	ACCOUNT NO.	M-DAY	DATE
S-3201 System							

REV.	ITEM	*R.S.	SYMBOL DESIG.	STOCK DWG NUMBER	DESCRIPTION	MFG CODE	MANUFACTURER PART NUMBER	QTY. ASSY.	QTY. UNIT	CODE	KARDEX	PURCHASE ORDER
				PLA-100B	Power Supply Accelerometer Amplifier			1 *	1 *			
				IK-PLA-100B	PLA-100B Installation Kit			1 *	1 *			
					Accelerometer Amplifier	ENDV	2614	1 *	1 *			
					Accelerometer with Cable X/XA	ENDV	2224	1 *	1 *			
		1			Cable, Acc. to Acc. Amp. X/XA (Part of Accelerometer)	ENDV	3090-120	-	-			
				20212	Cable, Accelerometer Amp. to P.S. A/XA			1 *	1 *			
				22017	Nameplate, Sine-O-Matic See Dwg. 32507 for installation)			1	1			

* Denotes items which may be deleted by P.O.N.
If PLA-100 is deleted, add 1 each ES-100-1 Blank Panel.

R.S. - RECOMMENDED AS CUSTOMER SPARES

DEPARTMENT	ISSUED BY	ISSUE DATE	RE

LING ELECTRONICS A DIVISION OF LING-TEMCO-VOUGHT INC

ENGINEERING PARTS LIST

DATE 12-13-74 PAGE 3 of 4 MANUAL
REV. C CONT'D ON 4 REQUISITION NO.

MODEL OR ASSY.	SERIAL NO.	SHOP ORDER	PON	QTY.	ACCOUNT NO.	M-DAY	DATE
S-3201 System							

REV.	ITEM	*R.S.	SYMBOL DESIG.	STOCK/DWG NUMBER	DESCRIPTION	MFG CODE	MANUFACTURER PART NUMBER	QTY. ASSY.	QTY. UNIT	CODE	KARDEX	PURCHASE ORDER
					Switch Flow (Part of 330 Shaker)			-	-			
				22129	Cable Amplifier to Flow Switch A/D			1	1			
					The Model 274 Heat Exchanger is an "Add Option". When the P.O.N. specified a 274 Heat Exchanger the following two (2) items are required:							
C				274	Heat Exchanger with A/H Cable #21190			1				
C												
					Note: If a 274 Heat Exchanger is specified as an "Add Option" on the P.O.N. delete the following:							
					Switch Flow (Part of 330 Shaker			1				
				22129	Cable, Amplifier to Flow Switch A/D			1				

*R.S. - RECOMMENDED AS CUSTOMER SPARES

DEPARTMENT	ISSUED BY	ISSUE DATE

LING ELECTRONICS A Division of LING-TEMCO-VOUGHT, INC

ENGINEERING PARTS LIST

MODEL OR ASSY. S-3201 System

REQUISITION NO.

ACCOUNT NO. M-DAY DATE

ORDER

Items on this page are optional equipment and must be specified on the P.O.N. if required.

82250-0005	Caster	DARNELL	1-73-C1	4
82086-0012	Breaker Line with Shunt Trip, 480 VAC, 70 Amp.	ITE	ET-73796	1
82287-0023	Enclosure, Breaker	ITE	E1	1

ENGINEERING PARTS LIST

MODEL OR ASSY. S-3201 System | SERIAL NO. | SHOP ORDER | P.O.N. | DRAWING NO. | DATE

REV.	TN E.C.M	P.R. S.	SYMBOL DESIG.	STOCK DWG NUMBER	DESCRIPTION	MFR	MFR'S PART NUMBER	QTY. ASSY.	QTY. UNIT	PURCHASE ORDER
					Items on thispage are for 50 cps Amplifier Conversion to be specified when P.O.N. calls for 50 cps Operation.					
			Delete 3K1	82290-0003	Relay	CL	5UU4-16	1		
			Add 3K1	82290-0002	Relay	CL	5UU4-15	1		
			Delete 3K3	82291-0008	Relay	CL	77U31-16	1		
			Add 3K3	82291-0029	Relay	CL	77U31-15	1		
			Delete 3K6	82290-0001	Relay	CL	5UU2-16	1		
			Add 3K6	82290-0032	Relay	CL	5UU2-15	1		
			Delete 3T5	PT-205	Transformer, Plate			1		
			Add 3T5	PT-366	Transformer, Plate			1		
			Delete 3T2	PT-369	Transformer, Stepdown			1		
			Add 3T2	PT-416	Transformer, Stepdown			1		

P.R.S. - RECOMMENDED AS CUSTOMER SPARES

DRAWN | TRACED | CHECKED

LING ELECTRONICS — TEMCO-VOUGHT INC

ENGINEERING PARTS LIST

DATE 5-15-64 PAGE 6 OF 8 PAGES
REV. 3 SHEET — REVISION NO.

MODEL OR ASS'Y: S-3201 System | SERIAL NO. | ORDER | PON | QTY. | ACCOUNT NO. | M DAY | DATE

REV.	ITEM	*R. S.	SYMBOL DESIG.	STOCK/DWG NUMBER	DESCRIPTION	MFG CODE	MANUFACTURER PART NUMBER	QTY. ASSY.	QTY. UNIT	CODE	KARDEX	POP HAZ ORDER
					Items on this page to be added for Operation as called for on P.O.N.							
					For 220 Volts 60 cps							
B			3T1	PT-226	Transformer, Auto Stepup 50 KVA			1				
B												
			3TB16	80112-0068	Barrier Type TErminal Strip	CJ	6-151	1				
				80113-0025	Marker Strip	CJ	MSX-6-151	1				
					For 220 Volts 50 cps							
B			3T1		Transformer, Auto Stepup			1				
B												
			3TB16	80112-0068	Barrier Type Terminal Strip	CJ	6-151	1				
				80113-0025	Marker Strip	CJ	MSX-6-151	1				

CODE TO MANUFACTURERS

AA	AIR ASSOCIATES
AB	ALLEN BRADLEY
AC	ASTRON CORPORATION
ACDC	ACDC ELECTRONICS
AD	ADVANCE RELAY
AD-YU	AD-YU LABS
ADEL	ADEL
ADMS	ADAMS & WESTLAKE
AH & H	ARROW-HART & HEGEMAN
AI	AIRCRAFT
AIRM	AIR MARINE PRODUCTS
ALB	ALBION
ALL	ALLIS CHAMBERS
AMC	AMSCO
AME	AMPERITE CO.
AMM	AMMON INSTRUMENTS INC.
AMP	AMPHENOL
AMPX	AMPEX
AP	AIR PAX
APH	ALPHA
API	AMERICAN PAMCOR INC.
AQ	AEROQUIP
AR	AEROVOX
ARCO	ARCO ELECTRONICS
ARM	ARMSTRONG CORK CO.
AS	ASSOCIATED SPRING
ASP	ASSEMBLY PRODUCTS
ATLE	ATLEE
AUTO	AUTOMATIC ELECTRIC
BAS	BASSICK
BC	BARBAR COLMAN
BECK	BECKMAN INSTRUMENTS
BEL	BELDEN
BEN	BENDIX
BG	BOSTON GEAR
BI	BIRNBACH
BIRT	BIRTCHER
BO	BODINE
BOU	BOURNS "TRIMPOT"
BOW	BOWERS
BP	BOGEN-PRESTO
BRE	BREEZE "AERO SEAL"
BRY	BRAYANT
BUD	BUD
BUCH	BUCHANAN
BUG	BUGGIE
BUR	BURROUGHS
BUSS	BUSSMAN MFG.
B & K	BRUEL & KJAER
C	CHATHAM
CA	CARLING ELECTRIC
CAL	CALIDYNE
CALC	CALIFORNIA CHASSIS
CAN	CANNON
CCI	CONTINENTAL CARBON, INC.
CD	CORNELL DUBILIER
CH	CHICAGO STANDARD TRANS.
CHD	CROUSE HINDS
CHSH	CHASE-SHAWMUT
CI	CINEMA
CJ	CINCH-JONES
CK	CONROY & KNOWLTON
CL	CLARK CONTROLER CO.
CLAR	CLAROSTAT
CM	COMPUTER MEASUREMENTS
COR	CORNISH
CP	COMMUNICATION PROD.
CRA	CRAMER
CRAF	CRAFTSMAN
CRIT	CRITTENDEN
CRL	CENTRALAB
CRN	CRANE
CT	CHASSIS TRAK
CTS	CH. TELE SUPPLY
CU	CURTIS
CUT	CUTLER HAMMER
D & H	D & H AWNING
DA	DAYTON
DALE	DALE
DECO	DEECO
DEFT	DEECO FELT
DELR	DELRY
DI	DIALITE CORP. (DIALCO)
DICO	DIAMOND MFG. (DICO)
DM	DIAMOND METAL
DRAK	DRAKE - ATWOOD
DUC	DUCOMMON
DUM	DUMOND
DY	DYMEC
ECK	ECKTRONICS
ED	EDCLIFF INST.
EEW	ELECTRO ENG. WORKS
EF	ELECTRO FAB.
EI	EIMAC
EM	ELECTRO-MEASUREMENTS
ELCO	ELCO
ELME	ELMENCO
ELTC	ELECTRAC
EMC	EMCOR
EMEC	EMEC
EMP	EMPCO
ENDV	ENDEVCO
EP	ENGINEERING PROD.
ER	ERIE
ERA	ELECTRONIC RESEARCH ASSOC.
ERC	ELECTRA RESISTOR CORP.
ES	EAGLE SIGNAL
ESCO	ELECTOR-SWITCH CORP.
ESX	ESSEX
EVER	EVEREST
F	FENWAL
FAN	FANSTEEL
FED	FEDERATED
FED-S	FEDERAL SCREW
FEI	FEDERAL ENTERPRISE, INC.
FF	FEDERAL FASTENING
FP	FISHER-PORTER
FR	FRANZ
FU	FULLER
ITT	FEDERAL (IT & T)
G	GRAYBAR
GA	GATES
GAXY	GALAXY
GC	GENERAL CEMENT
GCON	GENERAL CONTROL
GE	GENERAL ELECTRIC
GLA	GEELAR
GL	GLOBAR
GR	GENERAL RADIO
GRHL	GRAYHILL
GRIS	GRIGSBY CO.
GU	GUDEMAN
GV	G. V. CONTROL
HAW	HARTWELL
HAYS	HAYS MFG.
HE	HEINEMANN
HEY	HEYCO
HP	HEWLETT PACKARD
HGR.	H. G. REISING
HL	HELIPOT
HOF	HOFFMAN
HOP	HOPKINS
HS	HARDWARE SPEC.
HU	HUBBEL
HY	HYCOR
HYD	HAYDON
IGNS	INGERSOL RAND
IL	ILSCO
ILG	ILG
IMP	IMPERIAL
INSU	INSULINE
IRC	INT. RESISTOR CORP.
IREC	INT. RECTIFIER CORP.
IS	INSULATION SUPPLY
ITE	ITE CIRCUIT BREAKER
J	JOHNSON
JAN	JAN HARDWARE MFG.
JE	JEFFERSON
JEN	JENSEN
K	KIERLUFF
KENR	KEINER
KH	KRON-HITE
KING	KING
KT	KOOLTRONIC
KU	KULKA
KZ	KURZ-KASCH
LA	LYNCH ASBESTOS
LAMB	LAMBDA
LAR	L. A. RESISTOR
LE	LEACH
LER	LERCO
LI	LITTLE FUSE
LING	LING ELECTRONICS DIV.
LMB	LMB
LP	LAPP
LPD	LA-DEAU PROD.
LUNK	LUNKENHEIMER
M	MILLEN
MA	MALLORY
MD	MICRODOT
ME	METTSCRAFT
MEC	MEC
MH	MINNEAPOLIS HONEYWELL
MICA	MICAMOLD
MIN	MINARIK
ML	MACHLETT
MLR.	MILLER CO.
MMN	MARMON
MN	MARION
MOD	MODULONICS
MON	MONITOR
MOSE	MOSELEY
MOSS	MOSSMAN
MRC	MARCO
MRY	MURRAY
MS	MICROSWITCH
MTRO	MOTOROLA
N	NATIONAL CO.
NC	NATIONAL WIRE & CABLE
NE	NETWORK MFG.
NEI	NATIONAL ELECTRONICS INC.
NEP	NATIONAL ELECTRICAL PROD.
NHBB	NEW HAMPSHIRE BALL BEARING
NIBCO	NORTHERN INDIANA BRASS
NL	NATIONAL LOCK
O	OHMITE
OZ	O.Z. ELECTRICAL MFG CO.
PAN	PANDUIT
PANX	PANDUX
PCA	PCA
PE	PEERLESS
PENN	PENN CONTROL
PER	PERMOID
PH	PHILLIPS CONTROL (PHILTROL)
PHIL	PHILBRICK RESEARCH
PREM.	PREMIER METAL PROD.
PRKR	PARKER ELECTRICAL INST.
PRYN	PRYNE
PTB	POTTER - BRUMFIELD
PY	PYRAMID
QE	QUALITY ELECTRIC
R	ROTRON
RAY	RAYTHEON
RBC	RUBBERCRAFT
RCA	RADIO CORP. OF AMER.
RCC	RADIO CONDENSER CO.
RDL	RADIO DEVELOPMENT LAB
RE	REPUBLIC GLASS
REN	RENBRANDT
ROB	ROBERTSHAW-FULTON CON.
ROME	ROME
RT	RATIGAN
RY	RYTRON
S	SIMPSON
SA	SANGAMO
SAR	SARAN
SE	SERVICE
SEL	SELCO
SEP	STANDARD ELECT. PROD.
SH	SHALL CROSS
SI	SIGMA
SIE	SOUTHWESTERN IND. ENG.
SKT	SARKES TARZIAN
SK	SPENCER-KENNEDY-LABS.
SM	STANLEY MORRIS
SMC	SPECIALTIES MFG.
SMI	SMITH HERMAN
SOLA	SOLA ELECTRIC
SOR	SORENSON
SP	SPRAGUE
SPR	SUPREME
SQ	SQUARE D
SR	SIERRA ELECT. CORP.
SREC	STANDARD RECTIFIER
SS	SPECTRA-STRIP
STAH	STAHLIN BROS.
STAN	STANTRON
STIM	STIMSON, E.B.
STW	STANDARD WIRE & CABLE
SU	SUPERIOR ELECTRIC
SUPT	SUPRENANT
SW	SWITCHCRAFT
SW-CT	SWITCHING CONTROL
SWGL	SWAGELOCK
SY	SYLVANIA
T	TRIAD
T & B	T & B (CONNECTORS)
TH	THERMADOR
TI	TEXAS INSTRUMENT
TIC	TECHNOLOGY INST. CORP.
TNG	TUNGSOL
TR	TRUMBEL
TRAN	TRANSELECTRONICS
TRE	TRERICE
TRIM	TRIMM
TRID	TRID LABS. INC.
TX	TEKTRONIX
UI	UNISTRUT
ULAN	ULANET CO., GEO.
UN	UNIMAX
USDC	U. S. ELECT. DEVEL.
USEC	U. S. ENG. CO.
USG	U. S. GAUGE
UTAH	UTAH
UTC	UNITED TRANSFORMER
VAL	VALOR INSTRUMENTS INC.
WA	WALSCO
WAFD	WAKEFIELD ENGR.
WAT	WATERS
WB	WARNER BRAKE
WC	WEST COAST (WESCO)
WE	WESTINGHOUSE
WEL	WELWYN
WES	WESTON
WH	WAHLGREN
WHD	WEATHERHEAD
WHIT	WHITLOCK
WIN	WINCHESTER
WK	WECKESSER
WL	WARD LEONARD
WP	WESTCAP
WRMD	WIRE MOULD
WRNE	WESTERN ELECTRIC
WSPT	WESTPORT
WYCO	WYCO METAL PROD.
YO	YOUNG RADIATOR

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MA34253